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BY THE COMPTROLLER GENERAL

ORIGIN

Report To The Congress

OF THE UNITED STATES

COMPLETED

Legislation On Sizing Military Medical Facilities Needed To Correct Improper Practices, Save Money, And Resolve Policy Conflicts

The Department of Defense should have the flexibility to plan the size of new military hospitals and clinics based on considerations of (1) cost effectiveness, (2) staff availability, (3) realistic workload projections, and (4) teaching and training requirements. Under current rules, only the last factor is considered in planning space for retirees and dependents of retired and deceased members in new or replacement medical facilities.

GAO recommends that the Congress enact legislation allowing DOD to provide space in new and replacement hospitals and clinics to meet the needs of all eligible beneficiaries if it is found to be both cost effective and feasible in terms of staff availability.

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the Department of Defense's methods used in determining the proper size to build its military medical outpatient and ancillary support facilities. The specific issue addressed in the report is the extent to which the Department should plan to provide space in its new and replacement medical facilities for the care of retirees and dependents of retired and deceased members.

We made this review at the request of the Chairman, House Committee on Appropriations.

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Defense; and other interested parties.

Elmer B. Staats

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

LEGISLATION ON SIZING MILITARY MEDICAL FACILITIES NEEDED TO CORRECT IMPROPER PRACTICES, SAVE MONEY, AND RESOLVE POLICY CONFLICTS

D I G E S T

Since the size of new military hospitals and clinics has a direct effect on their costs of construction and operation, the methods and assumptions used to determine appropriate sizes for these facilities are crucial. A key consideration in determining the size of these facilities is the extent to which space is needed for retirees and dependents of retired and deceased members. This factor has important policy implications because it will affect (1) the cost of constructing and operating medical facilities in the future and (2) the medical benefits available to military beneficiaries.

The Department of Defense (DOD) received about $63 million in fiscal year 1980 to replace or renovate existing medical facilities or construct new ones and requested about $248 million in fiscal year 1981. DOD spent about $2.6 billion to operate its medical facilities in fiscal year 1979.

GAO believes DOD should have the flexibility to plan the size of new military hospitals and clinics based on considerations of (1) cost effectiveness, (2) staff availability, (3) realistic workload projections, and (4) teaching and training requirements. Under existing legislation and current DOD instructions, only teaching and training requirements are considered in planning space for retirees and dependents of retired and deceased members in new or replacement medical facilities. New legislation could

--correct the services' current improper sizing practices,

--save money in the long run, and

--align the sizing policy with the policy for providing staff and other medical resources to facilities once they are built.

GAO suggests a new policy allowing DOD to provide space in new and replacement medical facilities to meet the needs of all eligible beneficiaries, including retirees and dependents of retired and deceased members if it is found on the basis of detailed life-cycle economic analysis to be both cost effective and feasible in terms of staff availability to do so.

Such a policy would improve DOD's ability to satisfy its perceived moral obligation regarding the treatment of military retirees and dependents of retired and deceased members in military facilities. Moreover, to the extent that such a policy would result in the construction of facilities with greater capacity, it would, in GAO's opinion, be consistent with DOD's responsibilities to provide adequate medical facilities to meet its responsibilities in a war or national emergency. The Congress will need to amend title 10, section 1087, U.S. Code, to allow such a policy to be adopted and implemented.

CURRENT LAW AND DOD INSTRUCTIONS LIMIT SIZE OF NEW HOSPITALS AND CLINICS

Currently, the military services are required to limit the size of new hospitals and clinics to accommodate active-duty members and their dependents, plus additional capacity normally not exceeding 5 or 10 percent to meet training and teaching requirements. This additional capacity is the only space provided to meet

the needs of retirees and dependents of retired and deceased members in planning new or replacement military medical facilities unless there is a projected critical shortage of community facilities. Eligible beneficiaries not accommodated in military facilities can receive care from civilian providers and receive reimbursement for some or all of the expense through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

In July 1976, the House and Senate Committees on Appropriations directed DOD to review the 5- and 10-percent capacity limits, indicating the Congress would consider providing additional beds in new military hospitals for beneficiaries now receiving care under CHAMPUS, if the overall cost of in-house treatment were shown to be less costly to the Government. However, DOD has not modified its instructions on sizing military medical facilities since 1968. (See pp. 9 and 10.)

MILITARY SERVICES DO NOT FULLY COMPLY WITH SIZING LIMITATIONS

The method the three military services now use to size their new and replacement hospitals and clinics can lead to the construction of larger medical facilities than allowed by law or DOD instruction. While the military services generally apply the 5- and 10-percent limitations to determine inpatient bed needs, they do not generally use them to estimate outpatient or ancillary support requirements.

GAO believes this piecemeal application of the limitations to only one of the three major components of a hospital is improper. Although in some cases, DOD and the services may find it more cost effective or better in terms of providing service benefits to

size facilities to meet total expected workloads, GAO believes current practices circumvent legislative requirements and, therefore, require some action--either enforcement of the requirement or modification of the law. (See p. 11.)

COST COMPARISONS FAVOR MILITARY HOSPITAL CARE BUT STAFF AVAILABILITY IS UNCERTAIN

Recent studies show that the current limitations on the space allowed for retirees and dependents of retired and deceased personnel in new military facilities may not lead to the most cost-effective size options available to the Federal Government. While GAO did not independently study the cost of military medical care compared to civilian care, it believes two recent studies supply strong evidence that treatment in military facilities may, in some cases, be more cost effective to the Government.

Studies of the life-cycle costs of the proposed new San Diego Naval Hospital and the Fort Carson Army Hospital show it is considerably less costly to DOD to treat beneficiaries in the military hospitals than to pay for their care from civilian providers under CHAMPUS. GAO believes DOD should have some flexibility to plan additional space in military hospitals and clinics to treat retirees and dependents of retired and deceased members when it is cost effective.

In spite of the cost advantages of providing care in military facilities, it is uncertain whether the military services can provide sufficient staff to meet expected future workloads. Service projections indicate that there will be more military physicians available in the future. However, GAO believes projected physician strength is uncertain because it depends on such variables as physician pay levels and scholarship programs subject to change.

GAO believes the projected availability of medical staff should be applied as a constraint on determining the size of military hospitals. However, since staff availability becomes more uncertain as projections become longer in range, DOD should use projections of staff availability no more than 5 years in the future, whenever possible, as a constraint on size when making facility construction plans.

A new policy of sizing military medical facilities is also needed to help reconcile currently inconsistent policies. A conflict exists between DOD's policy on sizing new military hospitals and clinics and its policy on allocating staff and other resources for facilities after they are built.

While DOD policy limits the space to be planned in new inpatient and outpatient facilities by the 5- and 10-percent factors, no such policy limits staff and other resources that can be provided after the facility is constructed. This can result in staff being provided to individual facilities in excess of their designed capacities. A new sizing policy based on considerations of cost effectiveness and projected staff availability would be more in agreement with DOD's policy on allocating staff and other resources to existing medical facilities.

RECOMMENDATION TO THE CONGRESS

Because of the advantages to be gained from a new policy on sizing military medical facilities--correction of improper sizing practices by the military services, life-cycle cost savings, and reconciliation of currently conflicting policies--GAO recommends that the Congress amend title 10, section 1087, U.S. Code, to allow for the sizing of military medical facilities based on (1) cost effectiveness, (2) projected staff availability, (3) realistic workload

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projections, and (4) teaching and training requirements. GAO's report includes proposed language for such an amendment. (See app. III.)

RECOMMENDATIONS TO THE SECRETARY OF DEFENSE

Pending enactment of new legislation, the Secretary of Defense should:

--Direct the Secretaries of the Army, Navy, and Air Force to uniformly apply the current size limitations to both inpatient and outpatient facilities when programing space in new hospitals and clinics.

--Review the 5- and 10-percent factors used in sizing military medical facilities, as suggested in the conference report on the military construction appropriations bill for fiscal year 1977, to determine if these percentages are still valid for meeting teaching and training requirements.

--Consider, as part of the review, whether the 5- and 10-percent factors are the most appropriate factors to apply to outpatient and inpatient facilities.

--Revise DOD Instruction 6015.16, as necessary, based on the results of the review of the 5- and 10-percent factors. (See p. 33.)

If the Congress modifies the law in accordance with GAO's recommendation, DOD will need to develop a new sizing method which programs space in new or replacement medical facilities based on these four limitations:

--Life-cycle cost effectiveness.

--Projected staff availability.

--Realistic workload projections.

--Teaching and training requirements.

Each of the four limitations will generally lead to a different size estimate, requiring DOD to select the most appropriate one. This report describes how this can be done.

AGENCY COMMENTS

DOD concurred with GAO's recommendations to the Congress and will propose legislation to amend title 10, section 1087, U.S. Code, as GAO recommended. DOD stated that its acceptance of GAO's recommendations is based on the understanding that its medical facilities construction program for fiscal year 1982 will not be affected by GAO's proposed changes in DOD's sizing methodology since delays in proceeding with projects in the 1982 program would result in increased costs to the Government. GAO agrees.

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ABBREVIATIONS

CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
DOD	Department of Defense
GAO	General Accounting Office

CHAPTER 1

INTRODUCTION

The Department of Defense (DOD) has an ongoing program to replace or renovate existing military hospitals and clinics or construct new ones as necessary. DOD received about $63 million for this purpose in its fiscal year 1980 budget appropriation, and requests for fiscal year 1981 were about $248 million. Much of the space provided in new medical facilities is used for outpatient care or ancillary support, such as laboratory, radiology, and pharmacy services. DOD spent about $2.6 billion to operate its medical facilities in fiscal year 1979.

At the request of the Chairman, House Committee on Appropriations (see app. I), we reviewed DOD's methods of sizing military outpatient and ancillary support facilities. A DOD triservice Space Planning Panel is reviewing and updating the DOD criteria for sizing medical facilities, and a consulting firm is under contract to determine the feasibility of developing a DOD-wide, computer-based model for sizing outpatient and ancillary support facilities. In our February 19, 1980, letter to the Chairman (see app. II), we agreed to (1) monitor DOD's progress in meeting the goals established for its studies of outpatient and ancillary support facility sizing and (2) report to the Committee on one aspect of sizing that was not being covered by DOD--the policies regarding the categories of beneficiaries for which DOD is planning and constructing its medical facilities.

Since the size of new military hospitals and clinics directly affects their cost of construction and operation, the methods and assumptions used to determine appropriate sizes for these facilities are crucial. This report focuses on a key consideration in sizing: "To what extent should DOD plan to provide space in its new and replacement medical facilities for the care of retirees and dependents of retired and deceased members?" The answer to this question has important policy implications because it will affect the (1) costs of constructing and operating both inpatient and outpatient medical facilities in the future and (2) medical benefits available to military beneficiaries.

THE MILITARY HEALTH CARE SYSTEM

The military health care system is composed primarily of the direct care systems of the Army, Navy, and Air Force and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The direct care systems are to provide medical care to support U.S. military forces and to maintain high morale by providing comprehensive, high-quality medical care to military members and other eligible beneficiaries in peacetime.

The Army Surgeon General elaborated on this mission in 1978 congressional hearings by stating that the Army Medical Department's four principal objectives were to:

--Maintain physically and mentally fit soldiers and trained health staff to support Army combat, contingency, and mobilization plans.

--Provide care and treatment capabilities in a theater of operations and in the United States for combat casualties.

--Provide health services for dependents of soldiers, retired members and their dependents, and dependents and survivors of deceased soldiers.

--Provide a major incentive for soldiers, including health professionals, to select military service as a career.

The Army Surgeon General concluded that trained health staff is the basis for a responsive Army medical care system and that providing health care to the dependents of active-duty members and retired members and their dependents is a beneficial byproduct of military preparedness. The following table shows the size of DOD's worldwide direct care medical operations in fiscal year 1979.

Military service	Number of Hospitals U.S.	Number of Hospitals Other	Number of Clinics U.S.	Number of Clinics Other	Estimated expenditures for hospitals and clinics (fiscal year 1979) (millions)	Hospital admissions	Outpatient visits
Army	36	12	75	54	$1,242	377,045	20,533,075
Navy	23	8	136	34	590	221,957	12,331,160
Air Force	65	16	20	20	764	264,691	14,838,233
Total	124	36	231	108	$2,596	863,693	47,702,468

The medical facilities within the direct care system range from small clinics with limited medical capabilities to large medical centers with extensive medical specialty capabilities and medical teaching programs. To assure patients access to all necessary medical care, DOD operates a medical air evacuation program for transporting patients between its hospitals and finances supplemental care when medical care must be obtained from civilian hospitals.

CHAMPUS provides medical care from civilian sources to dependents of active-duty members, retirees and their dependents, and dependents of deceased members. When originally authorized in 1956, the program was intended to assure that the dependents of active-duty military members would receive medical care if they could not obtain such care at a military facility. In that context, CHAMPUS could be considered a safety valve for obtaining medical care that could not be provided by the military system. From fiscal years 1959 to 1966, costs remained relatively stable, ranging from $53 million to $76 million. Expanded benefits and additional categories of beneficiaries added in 1966, greater usage, and inflation have increased costs since that time. For fiscal year 1980 DOD was appropriated $754 million for CHAMPUS.

Section 750 of Public Law 94-212 requires that CHAMPUS beneficiaries needing nonemergency inpatient care seek such care in nearby uniformed services hospitals before using

CHAMPUS. Generally, before using the civilian facilities, all beneficiaries living within 40 miles of a uniformed services medical facility must obtain a nonavailability statement from that facility, certifying that it is not practical, or that the facility is unable, to furnish the inpatient care.

Under CHAMPUS, medical costs are shared by the Government and beneficiaries. For basic benefits, dependents of active-duty members pay $25 (or $5 a day, whichever is greater) for inpatient care; other beneficiaries pay 25 percent of total charges. For outpatient care, there is a deductible of $50 for each beneficiary ($100 maximum deductible for each family) each fiscal year, after which dependents of active-duty members pay 20 percent, and other beneficiaries pay 25 percent of the remaining charges. No limit is set on the Government payment under the basic program. For handicap benefits, which apply only to dependents of active-duty members, a specified monthly amount is charged ranging from $25 to $250 (depending on the rank of the active-duty member), and the Government pays the remaining charges up to $350 a month. The active-duty member pays any charges exceeding these amounts.

LAWS GOVERNING THE PROGRAMING AND USE OF MILITARY MEDICAL FACILITIES

Title 10, chapter 55, of the U.S. Code provides legislative requirements pertaining to the programing and use of military medical facilities. Section 1087 of the title pertains to the programing of space in military inpatient and outpatient facilities and limits the amount of space that can be included for retirees and dependents of retired and deceased personnel. Sections 1074 and 1076 pertain to the entitlement of active-duty members, dependents of active-duty members, and retirees and dependents of retired and deceased members to receive care in military medical facilities. Sections 1074(b) and 1076(b), which pertain specifically to retirees and dependents of retired and deceased members, state that they may be given medical and dental care upon request in any facility of the uniformed service, depending on the availability of space and facilities and the capabilities of the medical and dental staff.

The Assistant Secretary of Defense (Health Affairs) is responsible for (1) reviewing health matters within DOD,

including the construction of military hospitals, and (2) assisting the Secretary of Defense with the health and medical aspects of DOD policies, plans, and programs. The Surgeon General of each service is responsible for determining requirements for hospitals in accordance with established DOD policies and procedures.

OBJECTIVES, SCOPE, AND METHODOLOGY

As indicated on page 1, we designed our review to address the extent to which DOD should plan to provide space in its new and replacement medical facilities for the care of retirees and dependents of retired and deceased members.

We made our review at the headquarters offices of the Assistant Secretary of Defense (Health Affairs) with assistance from the Deputy Director for Facilities and Materiel. We interviewed the Chairman of the DOD Space Planning Panel and representatives of the Navy's Bureau of Medicine and Surgery in Washington, D.C.; the Air Force Health Facility Planning Group in San Antonio, Texas; the Army's Health Facility Planning Agency in Washington, D.C.; and the Army Health Services Command at Fort Sam Houston, Texas. From military headquarters offices, we obtained information on legislation, regulations, and procedures governing the sizing of military hospitals and clinics. We also obtained specific data on the methods used to size the San Diego Naval Hospital, the Fort Carson Army Hospital, and the Carswell Air Force Hospital--all of which are being considered for DOD's construction and renovation plans in the next few years.

We visited the San Diego Naval Hospital and interviewed hospital administrators and physicians. We also visited the Naval Facilities Engineering Command in San Bruno, California, and interviewed cognizant officials regarding the planning and engineering for the proposed Naval hospital in San Diego. In addition, we visited the Health Systems Agency of San Diego to discuss the agency's analysis of the impact that the proposed military hospital will have on community health care facilities.

We met with representatives of the consulting firm which prepared detailed cost comparison studies for the San Diego Naval Hospital and Fort Carson Army Hospital projects. We also obtained copies of these studies and used some of the cost data contained in them.

CHAPTER 2

CURRENT LAW AND DOD INSTRUCTIONS LIMIT THE SIZE OF NEW MILITARY HOSPITALS AND CLINICS

The law limits the amount of space to be included in military medical facilities to that needed for active-duty members and their dependents, plus any additional space the Secretary of Defense determines to be necessary to meet teaching and training requirements. Title 10, section 1087, of the U.S. Code states the limitation as follows:

> "Space for inpatient and outpatient care may be programmed in facilities of the uniformed services for persons covered by sections 1074(b) and 1076(b) of this title. The amount of space so programmed shall be limited to that amount determined by the Secretary concerned to be necessary to support teaching and training requirements in uniformed services facilities, except that space may be programmed in areas having a large concentration of retired members and their dependents where there is also a projected critical shortage of community facilities."

As required by title 10, the Secretary has determined the amount of space needed to meet teaching and training requirements. According to DOD, the factor for teaching hospitals was determined after 1966 and 1967 meetings between DOD and the American Medical Association accrediting boards for medical specialties. After considering several alternatives, the Secretary determined that teaching and training requirements would be met by adding either 5 percent (in nonteaching hospitals) or 10 percent (in teaching hospitals) to the space otherwise programed.

The 5- and 10-percent factors were implemented in 1968 in the form of Department of Defense Instruction 6015.16, which is currently in force. The applicable sections of this Instruction are as follows:

> "Military hospitals will be planned with the capacity of providing comprehensive medical care, through the use of an effective hospital team

concept for all active duty military personnel and their dependents and other authorized personnel * * *.

"Space for inpatient and outpatient care for retired members, their dependents and dependents of deceased personnel shall be limited to that amount determined to be necessary to support teaching and training requirements as outlined in section 1087 of title 10, U. S. Code, except as provided below:

> "The amount of space programmed for teaching hospitals and all other hospitals will normally not exceed 10% and 5% respectively of the space otherwise programmed at such facilities. Detailed justification will be necessary in support of any greater amount.
>
> "Space for retired members and their dependents may be programmed on the basis of projected workloads to provide inpatient and outpatient care in an area having a large concentration of such persons where there is also a projected critical shortage of community facilities."

Under the stipulations of title 10, section 1087, combined with DOD Instruction 6015.16, the three military services should limit the size of new hospitals and clinics to that needed to care for active-duty members and their dependents and then add capacity not to exceed 5 or 10 percent to meet training and teaching requirements. This 5- or 10-percent capacity is the only space to be provided to meet the needs of retirees and dependents of retired and deceased personnel in programing new or replacement military medical facilities unless there is a projected critical shortage of community facilities. Retirees and dependents of retired and deceased personnel who are not accommodated in military facilities are eligible for care under CHAMPUS.

The 5- and 10-percent sizing limitations imposed on the construction of new military medical facilities are not directly related to beneficiaries' entitlement under 10 U.S.C.

1074 and 1076 to care in military hospitals or clinics. Under sections 1074 and 1076, if space is available in military hospitals and clinics, dependents of active-duty members, retirees, and dependents of retired and deceased personnel can obtain care limited only by staff availability and other resources.

According to DOD, many military hospitals throughout the the Nation maintain inpatient and outpatient workloads of retirees and dependents of retired and deceased personnel that far exceed the 5- and 10-percent factors that limit the size of new facilities. For example, in fiscal year 1979 at the San Diego Naval Hospital, about 31 percent of the outpatient workload and 41 percent of the occupied inpatient beds resulted from treatment of retired or dependents of retired and deceased beneficiaries. If this hospital is replaced as DOD has proposed, the inpatient beds would have to be increased by 70 percent over those needed for active-duty members and dependents of active-duty beneficiaries to accommodate the current workload of retirees and dependents of retired and deceased personnel. This would compare to the increase of 10 percent (the teaching hospital factor) currently allowed by DOD instruction when sizing new hospitals.

According to DOD, the large workload of retirees and dependents of retired and deceased personnel in many military hospitals has come about because:

--These beneficiaries are eligible by law for inpatient and outpatient care on a space available basis.

--Many older military hospitals were either designed or remodeled with a much larger capacity than is currently needed for active-duty members and dependents of active-duty personnel.

--The military services have traditionally authorized staff for their hospitals based on mission requirements and total patient workload regardless of the proportion of the workload derived from retirees and dependents of retired and deceased members.

--Many of these beneficiaries prefer care in military hospitals to care under CHAMPUS because military hospitals are generally less expensive.

--Beneficiaries who live within a 40-mile radius of a military hospital are required to obtain nonavailability statements from the hospital before they become eligible for inpatient care under CHAMPUS.

Military officials face a dilemma when a facility with a workload consisting of a high proportion of retirees and dependents of retired and deceased personnel needs to be replaced. While the medical needs of these beneficiaries may be substantially met in the existing hospital, the law and DOD instructions indicate that space for both inpatient and outpatient care in the replacement hospital must be limited by the 5- or 10-percent rule.

CONGRESSIONAL POLICY GUIDANCE ON SIZING MILITARY HOSPITALS

In July 1976, the House and Senate Committees on Appropriations, in their conference report on the military construction appropriations bill for fiscal year 1977, gave DOD policy guidance concerning several issues related to hospital sizing. The report directed DOD to review its planning guidelines for providing beds in military hospitals for retirees and dependents of retired and deceased personnel. It also indicated that the Congress would consider providing beds in new military hospitals for beneficiaries now receiving care under CHAMPUS provided that the overall cost of such in-house treatment was less costly to the Government.

Report directs DOD to review guidelines

The conference report directed DOD to carefully review its guidelines for providing bed capacity for retirees and dependents of retired and deceased members. The review was considered necessary because:

--The guidelines were established several years ago.

--Military medical teaching programs have changed.

--The retired military population has been increasing and has tended to concentrate in certain areas.

Until the review was completed, the report suggested that DOD follow the existing guidelines, which provide for increases

of 5 percent in planning nonteaching hospitals and 10 percent in planning teaching hospitals.

The Congress will consider additional beds if shown cost effective

The conference report also discussed section 750 of Public Law 94-212, which directed retirees and dependents residing within 40 miles of a military medical facility to seek care at that facility. This legislation was designed to reduce the CHAMPUS workload and increase the use of existing military medical facilities.

The report reaffirmed that section 750 was intended to increase the use of beds in existing military hospitals, and not to be used as a rationale for justifying the need for additional acute care beds. The report indicated, however, that the Congress would consider providing beds in new military hospitals or in hospital facilities which are being extensively modified--for beneficiaries now receiving care under CHAMPUS--provided the overall cost of such inhouse treatment was less costly to the Government, and such a determination was supported by careful economic analysis.

DOD HAS NOT MODIFIED SIZING INSTRUCTIONS

Despite the congressional guidance, DOD has not approved a modification to its instruction on sizing military hospitals since 1968. While a new draft Instruction 6015.16 has been written, it has not yet been approved. Furthermore, the draft instruction contains the same stipulations as the 1968 instruction regarding planning for space for retirees and dependents of retired and deceased personnel.

CHAPTER 3

MILITARY SERVICES DO NOT FULLY COMPLY WITH SIZING LIMITATIONS

The methods the three military services use to size their new and replacement hospitals and clinics can lead to the construction of larger medical facilities than allowed under current law or DOD instruction. As discussed in chapter 2, the law and DOD instruction limit the amount of space to be provided in new military outpatient and inpatient facilities for treating active-duty members and their dependents, plus 5- or 10-percent additional space to meet training and teaching requirements. However, the Army, Navy, and Air Force:

--Size new outpatient facilities to meet the expected workload of all beneficiaries without imposing the limitations.

--Authorize staff for new hospitals and clinics based on total workload from all beneficiaries.

--Size ancillary support services, such as laboratory, pharmacy, and radiology, to meet expected workload from all beneficiaries.

--Apply sizing limitations, to some extent, only to the number of inpatient beds programed for new military hospitals.

We believe the piecemeal application of the sizing limitations is improper and may, particularly in instances related to the sizing of outpatient and ancillary support facilities, be contrary to existing legislation. DOD's policy governing the provision of space in new and replacement facilities should be uniformly applied to both inpatient and outpatient facilities. The services may, in some cases, have good reason to provide enough space in medical facilities to accommodate the total expected workload. These may include evidence of improved cost effectiveness, reasons relating to military medical readiness, or improvement of the services' ability to provide military benefits. We believe, however, that current practices that circumvent legislative limitations require action--either enforcement of the limitations or modification of existing law.

OUTPATIENT FACILITY SIZING METHODS DO NOT COMPLY WITH LEGISLATIVE REQUIREMENTS

The methods used by the services to size outpatient facilities in replacement hospitals and clinics are based primarily on projected workloads and staffing authorizations for the facility being replaced. The workload, however, often consists of a larger proportion of retirees and dependents of retired and deceased personnel than would be allowed in the replacement facilities under the 5- and 10-percent rules. The staffing authorizations are also based on total workloads that may exceed the limitations applicable to new facilities. Thus, by programing space in replacement facilities based on total projected workload and staffing levels, the services are not complying with the limitations set forth in title 10 and DOD's instructions for implementing title 10 requirements.

The result of current programing methods is usually to provide outpatient facility space large enough to treat the entire expected workload, even though the space needed to accommodate that workload exceeds the 5- and 10-percent limitations. Military officials responsible for programing the sizes of replacement Army and Air Force medical facilities told us that the retiree workload data for outpatient clinics are adjusted downward, in some cases, to bring the data into conformance with the 5- and 10-percent rules. However, they further stated that planned capacity is usually added to the facility plan to accommodate staffing requirements which were derived from workload estimates that include the retirees and dependents of retired and deceased personnel.

The square footage needed for outpatient care in a clinic or hospital is determined by first estimating the number of work stations required. According to DOD space planning criteria, each work station consists of two or more examination rooms and/or a specialized treatment room. The number of examining rooms per work station depends on the clinic specialty (e.g., medical, surgical, or pediatrics). A work station is usually programed to be staffed with one physician and several support personnel. This number also depends on the clinic specialty. A private office for each physician, nurse clinician, and physician's assistant is programed separately based on the total number programed.

According to military officials, the number of work stations needed for a particular clinic is estimated using two independent methods--one based on projected workload and the other based on planned staffing. If the two methods yield different estimates, the programer decides which number of work stations to select.

Using the workload method, the programer obtains data on the expected number of outpatient visits to the clinic 1/ and applies this number to a DOD formula to determine required work stations. A Navy official said that the total number of outpatient visits is used in the formula to size Navy clinics regardless of the proportion of visits from retirees or dependents of retired and deceased personnel included in the data. According to an Army official, the workload for retirees and dependents of retired and deceased personnel is sometimes subtracted from the total workload when the data are readily available. If the data are not available, no effort is made to estimate them. An Air Force official told us that the Air Force subtracts this part of the workload out in all cases before applying the DOD formula.

Although the retiree and dependents of retired and deceased workload may be subtracted when applying the DOD sizing formula, another sizing method based on authorized staffing for the new facility may be used instead. Since each physician requires an office and a number of examination rooms depending on specialty, the planned authorized staffing pattern in the new facility can be converted directly to a work station estimate. Officials of each of the three services told us that the estimates based on authorized staffing are generally used in the final sizing plan to determine square footage requirements.

By using the authorized staff as a measure of work station requirements, programers can, in effect, provide enough space to accommodate the entire expected workload regardless of the proportion of that workload generated by retirees and dependents of retired and deceased personnel. Officials of all three services told us that the number of physicians programed to be authorized for a facility is based on a total unadjusted workload. Therefore, the practice of using authorized staffing to determine number of work stations and

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1/Derived from historical workload adjusted to reflect projected changes in the beneficiary population.

number of work stations to determine square footage of replacement outpatient facilities circumvents the 5- and 10-percent limitations.

Sizing of the outpatient clinics in the proposed expansion of the Carswell Air Force Hospital illustrates the effect of current planning methods. According to an Air Force official, if the Air Force had used outpatient workload data adjusted by subtracting visits of retirees and dependents of retired and deceased personnel, the DOD formula would have yielded a requirement for 64 work stations. However, the official said the Air Force used its staff standards based on total workload data to project staff requirements for the new hospital. The projected staff requirements, in turn, led to an estimated need for 90 work stations. The Air Force is designing the new facility using the 90-station estimate.

ANCILLARY SERVICES ARE SIZED TO MEET TOTAL WORKLOAD

Ancillary services, such as laboratory, pharmacy, and radiology, are also sized by the Army, Navy, and Air Force based upon full projected workload estimates unadjusted for the proportion attributable to retirees and dependents of retired and deceased personnel. Officials of all three services told us that they do not generally collect data on the workload in ancillary support facilities divided by beneficiary category and no effort is made to determine the retiree proportion of that workload for estimating facility requirements. Instead, the full workload estimate is applied to the appropriate DOD formulas to determine square footage space requirements in replacement facilities. The result is the design and construction of laboratory, pharmacy, and radiology services sized and equipped to treat an unadjusted workload derived from past experience rather than from methods that would limit the space by the 5- or 10-percent planning factors.

THE NUMBER OF INPATIENT BEDS IS LIMITED BY THE 5- AND 10-PERCENT RULE

In contrast to the outpatient and ancillary support facility sizing methods, the three services estimate inpatient bed requirements in accordance with the 5- and 10-percent rules. In 1978 DOD adopted a computer-based sizing model

that we developed during prior work 1/ to project the appropriate bed needs of each beneficiary category. The bed requirements for active-duty members and their dependents are estimated using the sizing model and, in accordance with DOD instructions, 5 or 10 percent is added to this estimate to arrive at the total hospital bed requirement. Additional bed capacity may also be included to accommodate some of the dependents of active-duty workload previously served through CHAMPUS if it is cost effective. Other increases are also possible to meet new program requirements if they are separately justified.

NEW POLICY COULD HELP CORRECT IMPROPER PRACTICES

The three military services' methods of planning the size of new or replacement outpatient medical facilities can lead to the design and construction of larger military clinics than allowed under applicable law and DOD instructions. When sizing facilities in areas having a large number of retirees and dependents of retired and deceased members, the services circumvent the size limitations, which are based on meeting only teaching and training requirements, and plan enough space, staff, and ancillary support services to meet total expected outpatient workload. The expected workload may far exceed that needed to care for active-duty members and their dependents and meet teaching and training requirements as defined in DOD instructions.

We believe DOD and the services may, in some cases, have good reason--in terms of cost effectiveness and provision of improved health care benefits--to size facilities to meet total expected workloads. (See chs. 4 and 5.) Nevertheless, the manner in which the three services currently size outpatient and ancillary facilities circumvents existing law and DOD instructions and constitutes an improper practice that requires some action--either enforcement of existing limitations or modification of the law. Legislative action to adopt a new sizing policy could help correct current improper practices of the services.

1/"Policy Changes and More Realistic Planning Can Reduce Size of New San Diego Naval Hospital" (MWD-76-117, Apr. 7, 1976).

CHAPTER 4

COST COMPARISONS FAVOR MILITARY HOSPITAL CARE BUT STAFF AVAILABILITY IS UNCERTAIN

When planning the size of new or replacement hospitals and clinics, DOD has the opportunity to consider numerous health care treatment alternatives, ranging from providing all treatment in civilian facilities to providing all treatment in military facilities. Two recent studies by a consulting firm show that, over an assumed 20-year period of operation of two military hospitals planned for replacement, it would be less costly to DOD to treat beneficiaries in the planned replacement hospitals than to pay for their care from civilian providers under CHAMPUS.

Military health care planners speculate that the cost advantage of the military medical treatment alternative is due primarily to (1) the lower salaries paid to military physicians as compared to their counterparts in the private sector and (2) economies of scale available to military facilities. While the costs of excess beds in community hospitals located near military hospitals also need to be considered in developing total Federal costs for each alternative, these considerations did not appear to change the relative cost advantage of the proposed replacement hospitals.

However, the military services' future ability to fully staff their hospitals for maximum expected workload from all beneficiary categories is uncertain, and staff availability needs to be considered as part of the facility planning process. We believe a new policy on sizing military medical facilities could save money in the long run by allowing DOD the flexibility to shift resources from CHAMPUS to the direct care system in cases where careful economic analysis shows this to be most cost effective, and where adequate staff are projected to be available.

DOD COST COMPARISON STUDIES FAVOR MILITARY TREATMENT

We have not independently assessed the cost of medical care in military hospitals and clinics compared to civilian facilities. However, we have examined two recent studies on this subject by a consulting firm under contract to the Navy and the Army and agree with the general approach and

methodology used. The studies--one for the San Diego Naval Hospital, the other for the Fort Carson Army Hospital--compared the life-cycle costs of several options for providing care to military beneficiaries in each hospital's area. Life-cycle costs for a project alternative are derived in the studies by determining the costs of construction, operation, and other expenses incurred by the Federal Government each year over an assumed 20-year time period and discounting the costs using a 10-percent factor to arrive at present value costs.

A sensitivity analysis conducted by the consulting firm for the San Diego Naval Hospital study verifies that the compara ive cost results would not change significantly with reasonable variations in the factors and assumptions employed in the study. The sensitivity analysis varied the key factors and assumptions used in the study to compute life-cycle costs and assessed the degree to which these variations affect the study results. The analysis examined the effects of reasonable variations in

--tne 20-year economic life,

--the rate of escalation of health care costs,

--personnel or CHAMPUS costs,

--project construction (capital) costs, and

--the discount factor.

The analysis shows that reasonable changes in these factors and assumptions do not significantly change the study results.

We also discussed the studies with cognizant health care planners in DOD, the Navy, and the Army and found that they agreed with the overall conclusion of the studies--that medical care in the two military hospitals analyzed is considerably less costly to the Federal Government than care by local civilian providers under CHAMPUS. The health care planners told us that this finding is also consistent with findings of past studies conducted by DOD or the services. The uniform chart of accounts currently being implemented by the services should provide additional cost data relevant to these cost comparisons.

These two studies indicate that treating DOD beneficiaries in military hospitals and clinics can, in some cases, be more cost effective to the Government than paying for their care in civilian facilities. They also supply strong evidence that DOD can save money in the long run by adopting a new policy to size hospitals to treat all beneficiaries when proper economic analysis shows this to be most cost effective.

Cost comparison study of San Diego Naval Hospital favors in-house treatment

The consulting firm's analysis of health care delivery options for potential beneficiaries of the proposed San Diego Naval Hospital compared four potential alternatives and found that building a new Naval Regional Medical Center and treating all beneficiaries in-house is most cost effective. 1/ The contractor analyzed the following four alternatives:

Alternative 1--The Navy directly provides outpatient clinic services for active-duty beneficiaries; the contractor provides all other active-duty care in civilian facilities; and care for all other beneficiary categories provided by CHAMPUS.

Alternative 2--The Navy directly provides all care in-house for active-duty personnel and their dependents and a portion of the services required by other beneficiaries; care for all other beneficiary categories provided by CHAMPUS.

Alternative 3--The Navy directly provides all care for all beneficiaries in-house.

Alternative 4--The Navy directly provides virtually no in-house care; active-duty care provided by the contractor in civilian facilities; and care for all other beneficiary categories provided by CHAMPUS.

1/"Comparative Cost Analysis of Health Care Alternatives NRMC, San Diego, California," September 28, 1979, Management and Planning Services.

Alternatives 1 and 4 are similar because both provide care only through CHAMPUS to all but the active-duty beneficiaries. Under alternative 1, active-duty personnel would receive outpatient care in military clinics and inpatient care through contracts with civilian providers in civilian facilities. Under alternative 4, all active-duty care would be through contracts with civilian providers.

Alternatives 2 and 3 are similar because most care would be provided in the military hospital. Alternative 2 represents the approved DOD plan for replacing the existing San Diego Naval Hospital with a new hospital containing 560 acute care beds and a large number of outpatient clinics. Some of the inpatient and outpatient workload generated by retirees and dependents of retired and deceased personnel would "overflow" into CHAMPUS. However, alternative 3 provides a military hospital large enough to meet the total expected inpatient and outpatient workload from all beneficiary categories.

The consultant's cost estimates for the four alternatives clearly favor alternatives 2 and 3--where most or all care is provided in the military hospital. The 20-year life-cycle costs 1/ as developed by the consulting firm are shown below:

Alternative	Cost to Government (Navy)	Cost to beneficiaries	Total cost--Government plus beneficiaries	Naval hospital bed size (note a)
		(millions)		
1	$2,205	$496	$2,699	-
2	1,583	203	1,786	560
3	1,520	-	1,520	830
4	2,247	494	2,741	-

a/The hospital would also include sufficient outpatient and ancillary support facilities to conform to the indicated bed size.

1/All costs were stated in 1982 dollars discounted at 10-percent rate in accordance with Office of Management and Budget guidelines.

The 20-year life-cycle costs indicate that alternative 3--all care provided in the military hospital--is about $727 million (32 percent) less costly to the Government, and about $1.2 billion (45 percent) less costly to Government and beneficiaries than alternative 4--all care provided by nonmilitary providers.

The cost data presented in the study also indicate that the capital expenditure for a new military hospital in San Diego would be small compared to the 20-year life-cycle costs of the other alternatives. The expense of building a new hospital represents 21 percent of life-cycle cost for the all military hospital care alternative (alternative 3).

The overall conclusion of the study is:

> "The higher the proportion of Navy direct care for the San Diego NRMC [Naval Regional Medical Center], the lower the life cycle cost to both the Navy and beneficiary population (and the higher the demonstrable compliance with initiatives toward containment of health care costs) * * *."

Cost comparison study of Fort Carson Army Hospital favors in-house treatment

An analysis of health care delivery options for the Army's Fort Carson, Colorado, area beneficiary population compared the costs of 13 alternatives and, like the San Diego Naval Hospital study, found the least costly approach to be in-house military hospital care for all beneficiaries. The study 1/ was conducted under contract to the Army by the same consulting firm that prepared the San Diego Naval Hospital report.

Among the alternatives considered in the study were the following four, which cover the full range of options from the smallest to the largest military medical facility:

1/"An Economic Analysis of Alternative Methods and Resources for Delivering Health Services to Eligible Beneficiaries in the Fort Carson Area; Management and Planning Services"; (Vol. I, Aug. 28, 1979; Vol. II, Oct. 15, 1979; Vol. III, Nov. 15, 1979; and Vol. IV, Dec. 31, 1979).

Alternative A--The Army constructs a new 85,984-square-foot clinic on base and provides outpatient care to active-duty members only; active-duty inpatient care and both inpatient and outpatient care for most other beneficiaries provided by a contractor owned and operated hospital off-base; and some care also provided by CHAMPUS.

Alternative B--The Army constructs 155-bed hospital with 139,454-square-foot outpatient clinics on base and provides care for active-duty members and their dependents, and a small portion of services required for other beneficiaries; care of all other beneficiaries provided by CHAMPUS.

Alternative C--The Army constructs 195-bed hospital with 168,929-square-foot outpatient clinic on base, and provides care for active-duty members and their dependents, and a portion of services required for other beneficiaries; care of all other beneficiaries provided by CHAMPUS.

Alternative D--The Army constructs 310-bed hospital and provides enough space for all inpatient and outpatient care for all beneficiary categories in-house.

The reported life-cycle costs for each alternative clearly favor treatment in military hospitals. According to the study, the larger the military hospital built at Fort Carson (up to the 310-bed size), the lower the 20-year life-cycle cost to the Government becomes, as shown on the following page.

Alternative	Cost to Government (Army)	Cost to beneficiaries	Total cost--Government plus beneficiaries	Army hospital bed size (note a)
	(thousands)			
A	$489,400	$28,194	$517,594	-
B	464,030	68,504	532,534	155
C	437,141	28,194	465,335	195
D	397,850	-	397,850	310

a/The hospital would also include sufficient outpatient and ancillary support facilities to conform to the indicated bed size.

According to these cost estimates, alternative D--providing all beneficiary care at the Fort Carson Army Hospital--would cost the Government about 19 percent less than alternative A--the cost of providing military medical care only to active-duty outpatients and all other care through civilian providers.

COST ADVANTAGE MAY BE DUE TO SALARY DIFFERENCES AND ECONOMIES OF SCALE

The lower life-cycle costs of military health care estimated in the two cost comparison studies may be due primarily to the lower salaries paid to military physicians as compared to physicians in the private sector and to economies of scale available to military facilities. Military health planners indicated that salary costs are the largest component of total medical facility operating costs and said that many military physician specialists are paid considerably less than their civilian counterparts.

DOD physicians' compensation was studied in a July 1978 DOD physician survey. 1/ It showed that 58 percent of 2,895 Army, Navy, and Air Force physicians responding had a total annual pay, before taxes and deductions, of less than $34,000.

1/"Physician Survey, 1978: A Summary of Responses," Health Studies Task Force Report, Office of the Assistant Secretary of Defense (Health Affairs), July 24, 1978.

Only 9 percent of the respondents' pay was more than $46,000 per year. This is compared to a median net earnings of civilian physicians of $62,800 in 1976. 1/ By specialty, civilian physician median earnings ranged from $47,240 for general practice to $76,120 for obstetrics and gynecology specialists. 2/

Economies of scale may also contribute to the cost advantage of military medical care. According to a military health planner, the military services often obtain considerable cost reductions by purchasing medical equipment and supplies in large quantities to fill the needs of hospitals and clinics nationwide. However, local community hospitals can generally purchase only the relatively small quantities necessary to meet their own needs. Buying in quantity can save money.

COST OF EXCESS BEDS IN COMMUNITY HOSPITALS NEEDS TO BE CONSIDERED

The extent to which the construction of proposed military hospitals will increase nearby community hospitals' average patient-day costs should be included as a Federal cost factor in analyzing whether or not to construct a military hospital. Such increases in community hospital costs will be borne in part by the Federal Government under such programs as Medicare and Medicaid. We analyzed these added costs for the proposed San Diego Naval Hospital project and found that they would not significantly diminish the overall cost effectiveness of this project.

Excess hospital bed capacity in the United States has become a national concern in recent years. Between 1960 and 1978, the total number of non-Federal hospital beds for short-term and other care in general hospitals increased

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1/"'Doctor's Earnings' Staying Ahead of Inflation...But for How Long?" Medical Economics, November 14, 1977.

2/For unincorporated M.D.s' earnings, figures represent 1976 income from practice minus tax-deductible professional expenses before income taxes and for incorporated M.D.s, they represent total 1976 compensation from practice (salary, bonus, and retirement set-asides). Data apply to all office-based M.D.s and are drawn from the Medical Economics continuing survey.

from 640,000 to 931,000--more than 45 percent. The Department of Health and Human Services estimates that there are today 130,000 unneeded beds nationwide, costing the country $4 billion and the Federal Government $1.1 billion annually. Excess bed capacity is one reason that hospitals' average patient day costs during the period from 1950 to 1978 rose four times faster than the Consumer Price Index.

While the Government bears the cost (construction, equipment, staffing, etc.) of new military hospital beds, it is also sharing in the increased costs resulting from excess community hospital beds. Many were constructed with Federal support and operating costs are paid for, in part, through Medicare, Medicaid, and other Federal health benefit programs. Therefore, the Federal share of community hospital average patient day cost increases--which result from constructing a new or replacement military hospital--should be included in estimates of the project life-cycle cost.

We analyzed the effect of these cost increases on the proposed San Diego Naval Hospital replacement project life-cycle cost and found that they did not significantly diminish the overall cost-effectiveness of the project. Based on projections of excess community hospital beds in the San Diego area and expected costs of those beds of $177 per day in 1982, 1/ we estimated that the Federal share of the excess bed costs incurred because of the proposed 560-bed naval hospital to be about $160 million on the 20-year life-cycle basis. This increases the Federal costs as reported by the consulting firm for this military care option (alternative 2) from $1,583 million to $1,743 million over the life cycle. These figures indicate that alternative 2 is 22 percent less costly than the all civilian care option (alternative 4).

LARGEST SIZE OPTIONS MAY BE UNREALISTIC

While the life-cycle cost results developed for the San Diego Naval Hospital and the Fort Carson Army Hospital point to construction of the largest hospital alternatives, these options may be unrealistic. The largest size options--

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1/Projections provided by the Health Systems Agency of San Diego and Imperial Counties, California, which also estimated the Federal share of excess bed costs at 50 percent of the total daily costs of excess beds in the area.

830 beds in San Diego and 310 beds at Fort Carson--assume that all inpatient and outpatient care will be provided in the military hospitals and none by CHAMPUS. This appears unrealistic because, regardless of the military hospitals' sizes:

--Some patients who prefer CHAMPUS for outpatient care could continue to obtain care from private physicians under CHAMPUS regulations.

--The hospitals could not always economically provide the full range of all medical specialty services to all beneficiaries.

--Most likely many nonavailability statements authorizing CHAMPUS inpatient care would continue to be granted since currently they are based on continuity of care and other considerations unaffected by facility size.

Finally, the largest hospital size options may be unrealistic due to systemwide staffing constraints.

MILITARY SERVICES' ABILITY TO STAFF HOSPITALS IS UNCERTAIN

While the cost of in-house military medical care may be favorable, the military services' ability to staff the hospitals at the levels needed to meet future workloads is uncertain. Service projections indicate that, between the end of fiscal year 1979 and the end of fiscal year 1984, active-duty physician levels will increase by over 600, with the Army anticipating the largest gain. The projections are shown below:

	Fiscal year 1979	Fiscal year 1984	Change
Army	4,173	4,746	+573
Navy	3,687	3,670	-17
Air Force	3,420	3,471	+51
DOD	11,280	11,887	+607

However, projected physician strength is uncertain because it will depend on:

--The relative attractiveness of the Armed Forces Health Professions Scholarship Program compared to the Department of Health and Human Services' National Health Service Corps Scholarship Program and other programs.

--The level and stability of physician pay, including the Variable Incentive Pay Bonus.

Physician extenders may add to the services' ability to increase staffing levels. Recent Air Force experience shows that the military medical care system can deliver high-quality primary care to its patients by using more physician extenders, such as primary care nurse practitioners and physician assistants, and using physicians less. According to a 1979 Defense Resource Management Study, 1/ if the Air Force experience gained through a 2-year demonstration project proves applicable to all services, it would be possible to reduce the need for primary care physicians by more than 1,000 below the number of physicians required with no extenders. Such a change in mix of physicians and physician extenders could make military medicine even more cost effective in comparison to civilian alternatives than it is now.

The military services' ability to provide adequate medical support staff is questionable. According to the 1979 Defense Resource Management Study, the services are faced with significant shortages of enlisted medical personnel. One of our recent studies 2/ also documented a lack of adequate medical support staff and the resulting need for physicians to constrain their medical practice to handle administrative paperwork, locate and keep account of medical records, perform patient workups, and take medical histories.

Potential staffing limitations appear to be one of the reasons the Army decided to request a 195-bed hospital for Fort Carson rather than 310 beds, which was shown by the consultant's study to be most cost effective. According to Army Health Facility Planning Agency and Health Services Command representatives, the Army did not believe it could

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1/"Defense Resource Management Study--A Report Requested by the President and submitted to the Secretary of Defense," Donald B. Rice, February 1979.

2/"Military Medicine Is in Trouble: Complete Reassessment Needed" (HRD-79-107, Aug. 16. 1979).

staff the Fort Carson Hospital at the 310-bed level considering the limited resources of medical personnel and the needs of other Army hospitals worldwide. Therefore, the 310-bed plan, which would have required a deviation from current sizing limitations, was rejected from further consideration, and the 195-bed option was selected as a size which could be adequately staffed in the future.

Since the uncertainty of staff availability increases as projections become longer in range, we believe DOD should project staff availability no more than 5 years in the future, whenever possible, as a constraint on planning facility construction size. According to an Army official, the services currently estimate 5-year staffing availability with a reasonable degree of accuracy as part of their normal planning activities.

NEW POLICY COULD SAVE MONEY

DOD should have the flexibility to add space in its plans for new or replacement medical facilities to treat retirees and dependents of retired and deceased members, if it is shown on the basis of proper life-cycle economic analysis to be most cost effective. Projected staff availability and realistic workload projections should also be developed and used to set limits on the size of planned facilities. A new policy on sizing military medical facilities that allows DOD the flexibility to incorporate these factors into the planning process could save money in the long run by shifting patient workloads from CHAMPUS to the military direct care setting in new or replacement hospitals when military staff is available and when overall treatment in the military hospital or clinic is shown less costly to the Government.

CHAPTER 5

NEW POLICY NEEDED TO BETTER MATCH FACILITY SIZING TO RESOURCE ALLOCATION

A conflict exists between DOD's policy on sizing new military hospitals and clinics and its policy on allocating staff and other medical resources to the facilities after construction. While DOD policy limits the space to be planned in new inpatient and outpatient facilities by the 5- and 10-percent factors, its established policy for allocating staff and other resources which can be provided after the facility is constructed contains no such limitations. Compounding this conflict is a perceived "moral obligation" to provide as much treatment capability as possible in military medical facilities to care for retirees and dependents of retired and deceased members because they were promised such care. While the current lack of availability of military physicians and other medical staff has tended to mitigate the adverse effects of the inconsistency between the policies, the resolution of the inconsistency may become increasingly important if physician and other staff capability is increased in the future. A uniform policy needs to be established linking the planned space to the planned staff and other resources allocated to military hospitals and clinics.

DOD ALLOCATES STAFF AND OTHER RESOURCES TO PROVIDE MAXIMUM CAPABILITY

Title 10, sections 1074 and 1076, U.S. Code, provide that active-duty members have first priority for care in military medical facilities, and that other beneficiaries, including dependents of active-duty members, retirees, and dependents of retired and deceased members, can receive care subject to the availability of space, facilities, and staff capabilities. According to a DOD official, the law does not set a maximum limit on the amount of staff or other resources, such as equipment and supplies, that can be allocated to individual military facilities.

DOD and the services generally allocate medical staff and other resources to military hospitals and clinics based on the total workload or demand for both inpatient and outpatient services experienced by the facility. Such allocations are subject to the availability of staff and other resources within DOD's budgetary constraints.

In recent years, DOD has been unable to obtain the necessary physicians and other medical staff needed to meet the demands for medical care placed on the military medical system by all eligible beneficiaries. Nevertheless, in some areas with large populations of military retirees and dependents, medical staff has been allocated to attempt to meet the demands of these beneficiaries. This has resulted in allocating medical staff to some facilities in excess of the teaching and training limitations currently found in DOD's sizing policy and also in excess of some individual facilities' designed capacities. In view of the nonavailability of sufficient medical staff which DOD has experienced in recent years coupled with DOD's lack of enforcement of sizing limitations as they relate to outpatient and ancillary facilities (see ch. 3), problems caused by the inconsistency between DOD's sizing and staffing policies have, to date, been minimal for replacement hospital projects. However, if such staff becomes more readily available and the sizing limitations are stringently enforced, it may be expected that the policy inconsistencies will take on increasing importance.

DOD's perceived "moral obligation"

DOD has a perceived "moral obligation" to retirees and dependents of retired and deceased members to provide as much treatment capability as possible in military medical facilities. A 1974 House Armed Services Committee report 1/ makes the issue clear. According to the report, the perceived obligation is based primarily on promises the services made in the past as inducements to enlist or reenlist in the military. The promises, as characterized by the report, were that the retiree and his or her family would not have to worry about medical care because it would be available in military facilities. According to the report, this moral obligation has been stated and restated many times in service regulations.

The committee report also suggested that dependents and retired individuals were protesting the increasing difficulty of obtaining medical care after many years of general satisfaction with their treatment in military facilities.

1/Report of Subcommittee No. 2 of the House Committee on Armed Services, "CHAMPUS and Military Health Care," December 20, 1974.

According to the report, many individuals said that the inability to get care amounted to a breach of faith by the military, which for a long time advertised the benefits of a complete medical package for dependents and retired families to induce enlistment, reenlistment, and careers. Other individuals were convinced that, since the law provided for medical care to dependents and retired families, the inability to get such care violated the Congress' intent.

A study we recently completed, 1/ concluded that, since the end of the military draft in 1973, the military's direct medical care system has been faced with a constant gap between the number of military physicians needed to provide medical care and the number available. This situation has seriously impaired the system's ability to efficiently and effectively meet the peacetime demand for medical care.

Even if sufficient staff were available to DOD to treat all beneficiaries who seek care in military medical facilities, the law would limit sizing of new hospitals and clinics to a level which, in many cases, would be below the demand placed on the facilities by those beneficiaries. As discussed in chapter 2, strict adherence to the law and DOD instructions requires sizing new inpatient and outpatient facilities in accordance with the 5- and 10-percent rules. Application of the 5- and 10-percent rules to replacement hospitals can reduce the allowed space for retirees and dependents of retired and deceased members in the new hospital to levels even below those already available in the facilities being replaced.

NEW POLICY COULD HELP RESOLVE CONFLICTS

The current sizing policy conflicts with both DOD's policy on allocating staff and other resources to medical facilities and its perceived obligation to do so. Under current policies, space may be planned in new military medical facilities up to the amount needed to meet the needs of active-duty members and their dependents and to meet teaching and training requirements. Staff and other medical resources, on the other hand, may be allocated up to the limits of their availability, even if this results in the provision of staff beyond the designed capacity of

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1/See 2/ on page 26.

the facility based on current construction criteria. Compounding this conflict is the fact that DOD has a perceived moral obligation to provide as much treatment capability as possible in military medical facilities to care for retirees and dependents of retired and deceased members because of past promises. More uniformity is needed between the space planned in new or replacement medical facilities, and the staff and other resources to be allocated to them. A new policy of sizing military hospitals and clinics, which includes considerations of life-cycle cost effectiveness and projected staff availability, represents a step toward reconciling the conflicting policies.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

We believe that DOD should plan the size of new military hospitals and clinics based on (1) cost effectiveness, (2) staff availability, (3) realistic workload projections, and (4) teaching and training requirements. Under existing legislation as implemented by current DOD instructions, only teaching and training requirements are normally considered in planning space for retirees and dependents of retired and deceased members in new or replacement medical facilities. By adopting a new sizing policy, DOD can

--correct the services' current improper sizing practices,

--save money in the long run, and

--align the sizing policy with the policy for providing staff and other medical resources to facilities after construction.

Space needed to meet military teaching and training requirements should be only one of several considerations included in the overall sizing methodology.

The new sizing policy should provide enough space in new medical facilities to meet the needs of all eligible beneficiaries, including retirees and dependents of retired and deceased members, if it is found on the basis of detailed life-cycle economic analysis to be both cost effective and feasible in terms of staff availability. This would improve DOD's ability to satisfy its perceived moral obligation regarding the treatment of retirees and dependents of retirees and deceased members. Moreover, to the extent that such a policy would result in the construction of facilities with greater capacity, it would, in our opinion, be consistent with DOD's responsibilities to provide adequate medical facilities to meet its responsibilities in the event of war or national emergency. The Congress will need to amend title 10, section 1087, U.S. Code, to allow a policy such as this to be adopted and implemented.

Until the law is modified, DOD and the services need to fully comply with title 10, section 1087, U.S. Code, and DOD Instruction 6015.16 by uniformly applying the sizing limitations to both inpatient and outpatient facilities.

If the Congress modifies the sizing policy as we suggest, DOD will need to develop a new sizing method which programs the size of new or replacement medical facilities on the basis of four limitations:

--Life-cycle cost effectiveness.

--Projected staff availability.

--Realistic workload projections.

--Teaching and training requirements.

Each of these limitations may lead to a different facility size estimate, and DOD's problem will be to first derive the four size estimates and then select the most appropriate one from among them. We believe the selection should be made on the basis of a decision process outlined in appendix IV.

RECOMMENDATION TO THE CONGRESS

In light of the advantages to be gained from a new policy on sizing military medical facilities, we recommend that the Congress amend title 10, section 1087, U.S. Code, to allow for the sizing of military hospitals and clinics based on (1) life-cycle cost effectiveness, (2) staff availability, (3) realistic workload projections, and (4) teaching and training requirements.

Appendix III contains the current legislative language and proposed new language which we believe would establish the needed policy on sizing new and replacement military medical facilities.

RECOMMENDATIONS TO THE SECRETARY OF DEFENSE

We recommend that, pending the enactment of the new legislation, the Secretary:

--Direct the Secretaries of the Army, Navy, and Air Force to uniformly apply the size limitations required by law and DOD instructions to both inpatient and outpatient facilities when programing space in new hospitals and clinics.

--Review the 5- and 10-percent factors used in sizing military medical facilities, as suggested in the conference report on the military construction appropriations bill for fiscal year 1977, to determine if these percentages are still valid for meeting teaching and training requirements.

--Consider, as part of the review, whether the 5- and 10-percent factors are the most appropriate factors to apply to outpatient and inpatient facilities.

--Revise DOD Instruction 6015.16 as necessary based on the results of the review of the 5- and 10-percent factors.

If the Congress modifies title 10, section 1087, U.S. Code, in accordance with the language we propose in appendix III, we recommend that the Secretary of Defense adopt a new sizing methodology which incorporates the decision process outlined in appendix IV.

AGENCY COMMENTS AND OUR EVALUATION

The Principal Deputy Assistant Secretary of Defense (Health Affairs), in a September 30, 1980, letter, stated that DOD concurs with our recommendation to the Congress and will initiate a legislative proposal to amend title 10, section 1087, U.S. Code. He also stated that the Department's acceptance of our recommendation is based on the understanding that medical facilities currently approved for the fiscal year 1982 program would not require reprograming because of the increased cost that would be incurred as a result of design breakage and construction delay.

The official also stated that the military services were employing cost effectiveness as a significant programing factor when sizing replacement facilities, but that DOD will give this factor increased visibility by incorporating it into the revision of DOD Instruction 6015.16. DOD did not comment on our other recommendations to the Secretary of Defense, but assumed that title 10 will be amended before

authorization and appropriation hearings occur on the fiscal year 1983 medical facility construction program.

We agree with DOD's assessment that the implementation of a sizing methodology, such as we proposed for all medical facilities projects DOD currently has programed for fiscal year 1982 would result in delays and increased cost which the Government should not incur. If DOD actively advocates passing such legislation as we propose, the prospects for implementation of the revised sizing methodology before hearings on DOD's fiscal year 1983 medical facilities construction program will be greatly enhanced.

APPENDIX I

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CAPITOL 5-3121
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Congress of the United States

House of Representatives
Committee on Appropriations
Washington, D.C. 20515

dms

July 31, 1979

The Honorable Elmer B. Staats
Comptroller General of the United States
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Staats:

The Committee has recently completed its hearings on the Department of Defense's budget request for fiscal year 1980. During the hearings, we discussed many aspects of DOD's programs for providing medical care to beneficiaries.

There are several areas that the Committee would like your office to examine further during the coming year.

Sizing of Outpatient Facilities

Your office has prepared several reports for us concerning the appropriate bed size of military inpatient facilities. We feel it is now time to look at how the military services size their outpatient and ancillary support facilities. The broad questions we would like you to address are:

1. Do the military medical departments have a single, appropriate methodology for sizing outpatient and ancillary support facilities? If not, should there be such a methodology?

2. Would a computerized model be effective in sizing outpatient and ancillary support facilities? If so, can one be developed?

3. What cost savings could be achieved by developing one standard outpatient clinic for each of the services to use?

We would like your report on this matter by February 1980 for use during our hearings on DOD's fiscal year 1981 budget request.

APPENDIX I

Naval Regional Medical Center San Diego, California

In fiscal year 1981 the Navy may request funding for the replacement of its San Diego hospital. We understand that the City of San Diego has recently offered to provide an alternate site for the new facility.

We would appreciate it if your staff could evaluate the advantages and disadvantages of the sites currently being considered by the Navy. Please give particular attention to the estimated impact each site has on the total cost of the proposed project.

We would like your report on this matter as soon as possible, but not later than November 1979.

Wartime/Contingency Hospital Planning

With the concern over physician shortages, much attention has recently been focused on the wartime as well as the peacetime missions of the military medical departments. In evaluating the merits of hospital construction projects over the past several years, the Committee has focused largely on peacetime requirements. Since DOD is now planning to place considerable reliance on other Federal and civilian hospitals to provide care to wartime casualties, the Committee believes that it should have better information on the contribution that different hospitals make to DOD's medical readiness posture.

Therefore, I would appreciate it if your office could:

1. Assess the contribution that non-DOD hospitals are expected to make to support DOD's wartime/contingency mission.

2. Determine the extent to which DOD considers the specific wartime/contingency mission of a hospital when planning its construction.

3. Evaluate the contribution that non-DOD hospitals could make to both DOD's peacetime and wartime/contingency mission.

4. Assess dual mission hospitals to determine whether renovation or complete replacement would be the most appropriate approach to construction.

5. Determine what savings could be achieved by any changes in planning for wartime medical contingencies.

The Committee staff will contact your staff to discuss which hospitals should be subjected to the detailed examination referred to above.

APPENDIX I

This report should be available prior to our hearings on the fiscal year 1981 budget.

Sincerely,

Jamie Whitten

Chairman

APPENDIX II

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

HUMAN RESOURCES
DIVISION

FEB 19 1980

The Honorable Jamie Whitten
Chairman, Appropriations Committee
House of Representatives

Dear Mr. Chairman:

Your letter dated July 31, 1979, requested that we look into the methods used by the military services to size their outpatient and ancillary support facilities. In planning this work, we had several discussions with representatives of the Office of the Assistant Secretary of Defense (Health Affairs) and health facility planning officials of the military services. We found that the Department of Defense (DOD) believes that review and update of its outpatient and ancillary support space planning criteria is needed and has taken steps to begin this process.

In this regard, DOD, in September 1979, extended the scope of an existing contract with a consulting firm to determine the feasibility of developing a DOD-wide computer based model for sizing outpatient and ancillary support facilities. Such a model--when it is developed--is to be linked to other DOD computer-based systems--such as a uniform staffing model, a health resources forecasting system and an eligibility and enrollment system--which have been under development for several years. DOD expects this segment of the consultant's work to be completed in August 1980. The official in the Assistant Secretary's office responsible for facilities planning told us that the consulting firm is proceeding satisfactorily with this effort and that he expects the firm to meet the contract deadline.

Also, DOD has initiated a tri-service study to (1) review and update the services' current outpatient and ancillary support facility sizing criteria, and (2) develop uniform DOD-wide criteria for sizing such facilities. At a meeting of the DOD (Health Affairs)

APPENDIX II

Space Planning Panel on November 29, 1979, it was determined that the space criteria would be updated by the panel using special subcommittees made up of representatives from each of the three military services. The Space Planning Panel established a priority list for criteria update actions on individual medical facility planning functions and agreed on a 30-month period beginning January 1, 1980, for completion of the entire project. Review and update of space planning criteria pertaining to hospital clinics is scheduled for completion by January 1981.

During our review of the objectives and scope of the DOD study, we were concerned that the study, as originally outlined, would not sufficiently evaluate the validity of the planning factors used in the current outpatient sizing formulae, which provide critical elements in the sizing methodology. These planning factors include (1) assumed times for clinic visits, (2) assumed numbers of clinic visits each physician can handle each day, and (3) factors DOD uses to add facility capacity above that needed to meet average workloads in all clinics. Since these factors are applied to overall clinic workload statistics, small variations in the factors can produce large changes in estimated facility and physician staffing requirements.

We discussed our concerns with the Chairman of the Space Planning Panel 1/ who agreed with the importance of including these considerations in the two-part study effort discussed above. The chairman stated that the necessary evaluations of the planning factors would be accomplished within the timeframes established for each of the Panel's study segments.

In view of the actions being taken by DOD health officials to review and update the current criteria and methodology for planning outpatient and ancillary support facilities, we believe we should defer a detailed study of these aspects of DOD's outpatient sizing activities, until it has completed its work. In the interim, we will monitor the Department's progress in meeting its objectives.

1/ Also the official in the Assistant Secretary's office responsible for facilities planning.

APPENDIX II

To assist us in our monitoring effort, the Assistant Secretary's office has agreed to provide us copies of all interim and final reports prepared by both the tri-service panel and the contractor, which pertain to outpatient or ancillary support facility sizing. We will review these documents as we receive them and discuss any questions or concerns which we may have with DOD personnel. As the work progresses, we will continue to reassess the required level of our involvement, and report to you if it appears that detailed analysis on our part is warranted.

In addition to the monitoring discussed above, we plan to review DOD's policies regarding the categories of DOD beneficiaries for which it is planning and constructing such facilities. This matter will require significant effort on our part and we will keep the Committee apprised on our progress.

We are providing copies of this letter to the Assistant Secretary of Defense (Health Affairs) who is responsible for leading DOD's efforts in this area.

Sincerely yours,

Gregory J. Ahart
Director

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CURRENT AND PROPOSED LANGUAGE FOR TITLE 10, SECTION 1087, U.S. CODE

Current language

Space for inpatient and outpatient care may be programed in facilities of the uniformed services for persons covered by sections 1074(b) and 1076(b) of this title. The amount of space so programed shall be limited to that amount determined by the Secretary concerned to be necessary to support teaching and training requirements in uniformed services facilities, except that space may be programed in areas having a large concentration of retired members and their dependents where there is also a projected critical shortage of community facilities.

Proposed language

Space for inpatient and outpatient care may be programed in facilities of the uniformed services for persons covered by section 1074(b) and 1076(b) of this title. The amount of space so programed shall be limited to that amount determined by the Secretary concerned to be either (1) necessary to support teaching and training requirements in uniformed services facilities or (2) most cost effective to the Federal Government based on the results of a complete life-cycle cost analysis which considers all reasonable and available medical care treatment alternatives. Space so programed shall be further limited based on the best available projections of expected inpatient and outpatient workloads and based on the number of physicians and other medical personnel which the Secretary concerned determines can and will be made available to staff the facility.

APPENDIX III

APPENDIX IV

OUR PROPOSED METHOD FOR SIZING MILITARY HOSPITALS AND CLINICS UNDER A NEW SIZING POLICY

If the Congress adopts a new sizing policy as recommended, DOD will need to develop a new sizing method in accordance with the policy to program space in military medical facilities on the basis of four separate limitations:

--Life-cycle cost effectiveness.

--Projected staff availability.

--Realistic workload projections.

--Teaching and training requirements.

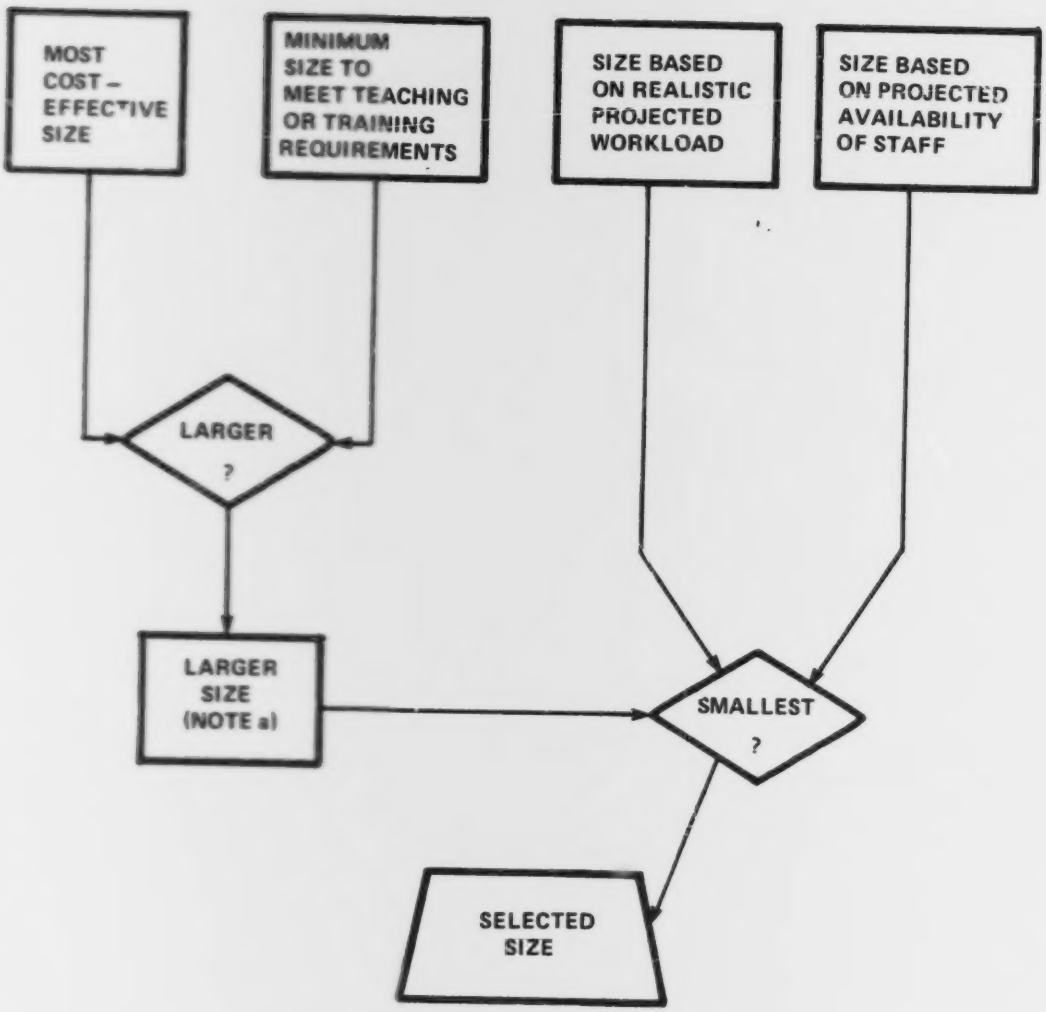
Each of these limitations, if taken separately, will generally yield a different facility size estimate. DOD needs to first determine the facility size estimate corresponding to each limitation and then select the most appropriate estimate.

We believe the selection should be made on the basis of the decision process illustrated on the following page. Under this decision process, the size determined to be most cost effective would first be compared to the size needed to meet minimum teaching or training requirements, and the larger of the two would be chosen. This step insures that sufficient space will be provided to at least meet teaching and training requirements, but more could be provided at the discretion of the Secretary of Defense if it is more cost effective. The resulting estimate from this step is next compared to the two size estimates derived from projections of expected workload and staff availability. The smallest of the three sizes is chosen because it would not make sense to build the most cost-effective size or the size determined by teaching and training considerations if sufficient patient workload and medical staff were not reasonably expected to be available in the future.

The following sections describe how the four separate size estimates can be derived.

APPENDIX IV

DECISION PROCESS FOR SIZE SELECTION


MOST COST – EFFECTIVE SIZE
MINIMUM SIZE TO MEET TEACHING OR TRAINING REQUIREMENTS
SIZE BASED ON REALISTIC PROJECTED WORKLOAD
SIZE BASED ON PROJECTED AVAILABILITY OF STAFF
LARGER ?
LARGER SIZE (NOTE a)
SMALLEST ?
SELECTED SIZE

a/ Under our proposed language for title 10, section 1087, U.S. Code, the Secretary may select either the most cost-effective size or the minimum size to meet teaching and training requirements. Generally, the larger of the two sizes should be chosen in this step of the process.

MOST COST-EFFECTIVE SIZE

To determine the most cost-effective size, DOD should require each of the military services to prepare cost comparison studies of medical treatment alternatives using life-cycle cost analysis. We believe that for most projects the studies are needed on a case-by-case basis because the cost advantage of in-house military care can vary with many factors including (1) the facility's location, (2) its size, and (3) medical specialties to be available in it. 1/ Also, the cost advantage of in-house military care may change as salary levels and service fringe benefits change.

The cost comparison studies should compute total costs to the Federal Government of each alternative, considering the Federal share of excess community hospital bed costs as discussed in chapter 4 of this report.

LARGEST SIZE WHICH CAN BE STAFFED

To determine the expected adequate staff size, DOD should require each service to prepare detailed estimates of current and proposed staffing levels for the proposed facility. The estimates should include the best available projections of the expected servicewide availability of physicians and other medical staff no more than 5 years from the programing date and an explanation of how these projections affect staffing levels of the proposed facility. If the proposal calls for a larger staff than that assigned to the existing facility, DOD should require detailed justification of how the increase will be attained within the 5-year time frame.

Having projected staff availability, DOD can then apply staff productivity factors by department to yield the hospital bed day and clinic visit workload which can be supported by the available staff. This workload will, in turn, yield facility space requirements through DOD's sizing criteria.

1/Such studies may not be needed, for example, in instances where small military clinics are being planned for areas in which there are no reasonable alternatives to the provision of direct care through the clinics.

SIZE NEEDED TO MEET REALISTIC WORKLOAD PROJECTIONS

DOD and the services should continue to use the computer-based sizing model we developed during prior work as the basis for estimating the inpatient hospital size needed to meet expected workloads. The model provides projected inpatient requirements for all beneficiaries. DOD should add a portion of the average CHAMPUS workload in the facility's catchment area to the bed requirements determined by the model. To determine this proportion, the services need to analyze the nonavailability statements issued in the prior year at the existing facility and determine the ratio of those issued due to a lack of space or staff, to those issued for other reasons, such as continuity of care. The workload sent to CHAMPUS due to considerations of continuity of care, for example, would tend to continue even after the facility replacement is completed, and should not be used to justify a larger facility size. Furthermore, the nonavailability statements issued for lack of staff should not add to the new facility size unless additional staffing is contemplated, or if additional medical specialties are to be offered in the new facility.

Outpatient workload can be projected for each department using historical data for both in-house and CHAMPUS care and projected changes in the beneficiary population.

Once the workload is estimated, facility size can be determined using appropriate DOD criteria.

SIZE NEEDED TO MEET TEACHING OR TRAINING REQUIREMENTS

The size needed to meet teaching or training requirements in military inpatient and outpatient care facilities should be determined by the Secretary of Defense. The Secretary has determined that the teaching and training requirements would be met by adding 10 and 5 percent, respectively, to the amount of space otherwise programed for active-duty members and their dependents in both inpatient and outpatient facilities. However, the Secretary should review and update these factors when necessary.

APPENDIX V

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

HEALTH AFFAIRS

30 SEP 1980

Mr. Gregory J. Ahart
Director
Human Resources Division
General Accounting Office
Washington, D. C. 20548

Dear Mr. Ahart:

This is in reply to your letter to the Secretary of Defense, regarding your report dated August 14, 1980 on "New Legislation on Sizing Military Medical Facilities Could Help Correct Improper Practices, Save Money and Resolve Policy Conflicts" (GAO Code 101027), (OSD #5516).

The staff of the Department has reviewed the GAO report and concurs with the report's recommendations that the Congress amend title 10, section 1087, U. S. Code, to allow for the sizing of military medical facilities based on consideration of (1) cost-effectiveness; (2) project availability of staff; (3) realistic workload projections; and (4) teaching and training requirements. These four considerations are critical to properly sizing military medical facilities.

We are pleased that your report was influenced by the life-cycle economic analyses for the replacement hospitals at Fort Carson and San Diego. As exemplified by these studies, the Services are currently employing cost effectiveness as a significant programming factor when sizing replacement facilities. This is consistent with Congressional guidance set forth in House Report #94-1314 and reinforced in subsequent years by the various Congressional Military Construction Subcommittees. It is true that this guidance has yet to appear in an official DoD Instruction, and we agree it should be given an increased level of visibility, therefore, it is being incorporated into our revision of DoDI 6015.16.

It should be noted that the Department's acceptance of the GAO's draft recommendations is based on the understanding that the medical facility projects that are currently approved for the Fiscal Year 1982 program would not require reprogramming because of the increased cost that would be incurred as a result of design breakage and construction delay.

APPENDIX V

Additionally, we assume that title 10 will be amended before authorization and appropriation hearings occur on the FY 1983 medical construction program. Based on the GAO's recommendations, we will initiate a legislative proposal to amend title 10 as proposed by the GAO report.

Finally, I should like to state that we found the study performed by the GAO to be thorough and precise and we appreciate the useful insights the report has provided.

Sincerely,

Vernon McKenzie
Principal Deputy Assistant Secretary

(101027)